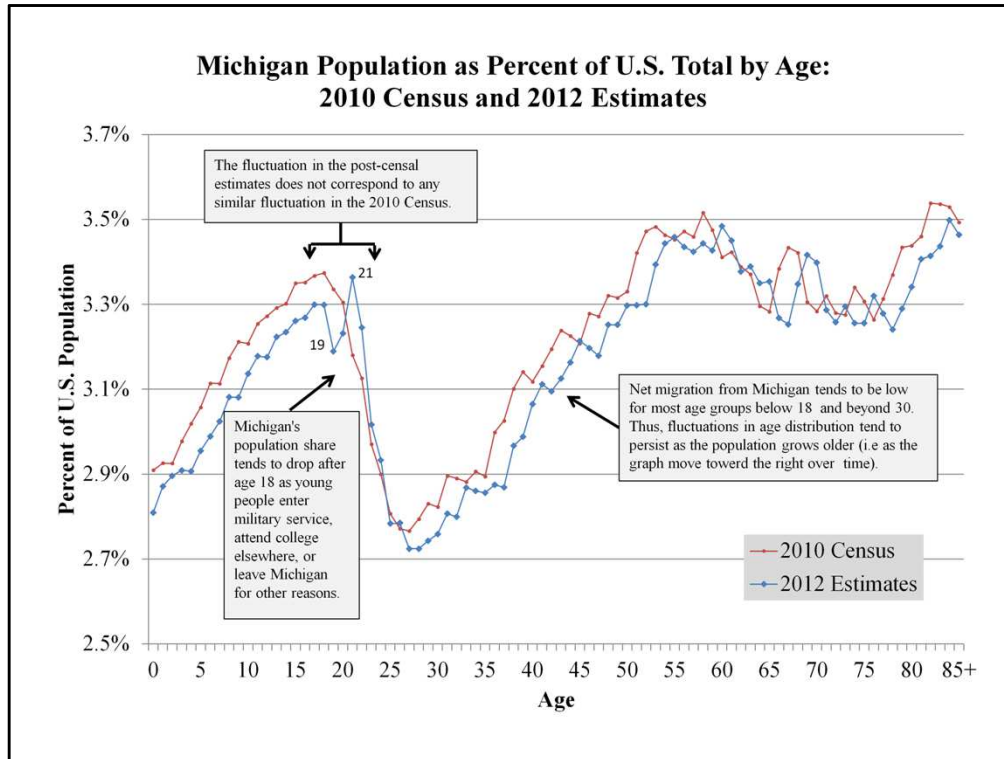


Population and Population Change by Age for Michigan: Actual Changes and Statistical Artifacts

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The Census Bureau's population estimates reveal significant changes that are taking place for different age groups. However, some of the changes that are suggested by the new estimates may reflect shortcomings of the current methodology.

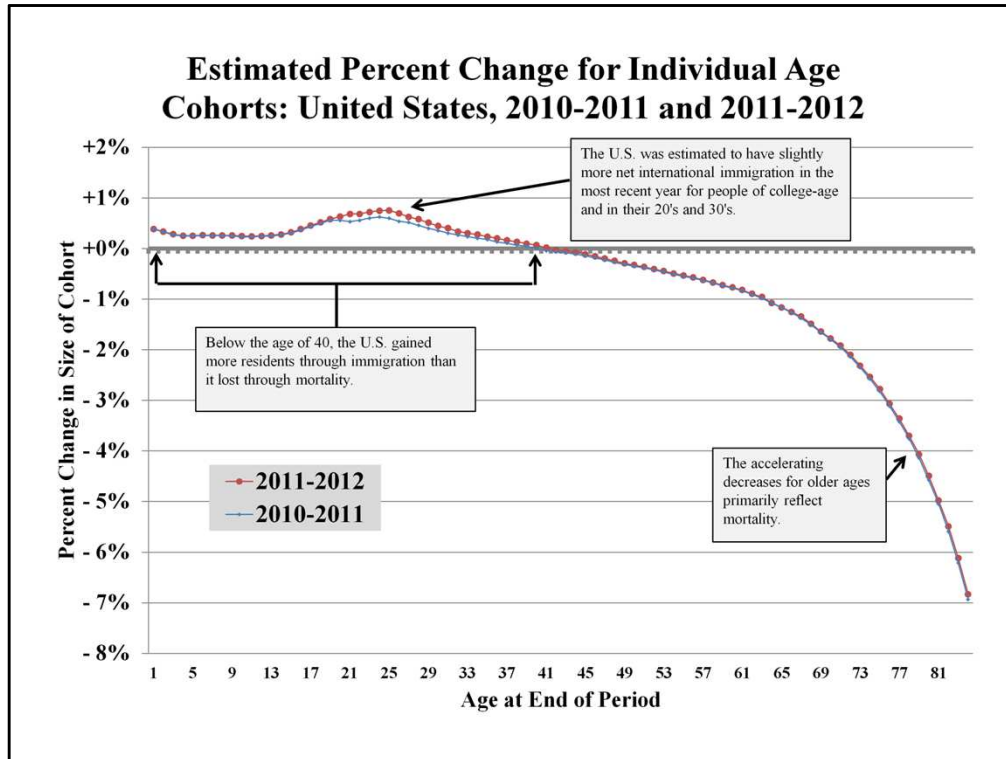


Michigan's share of the nation's population varies with age and changes over time. This primarily reflects net migration and changes in birthrates. (Michigan's mortality rates are similar to national rates, so mortality does not have a large impact upon its share of the nation's population.)

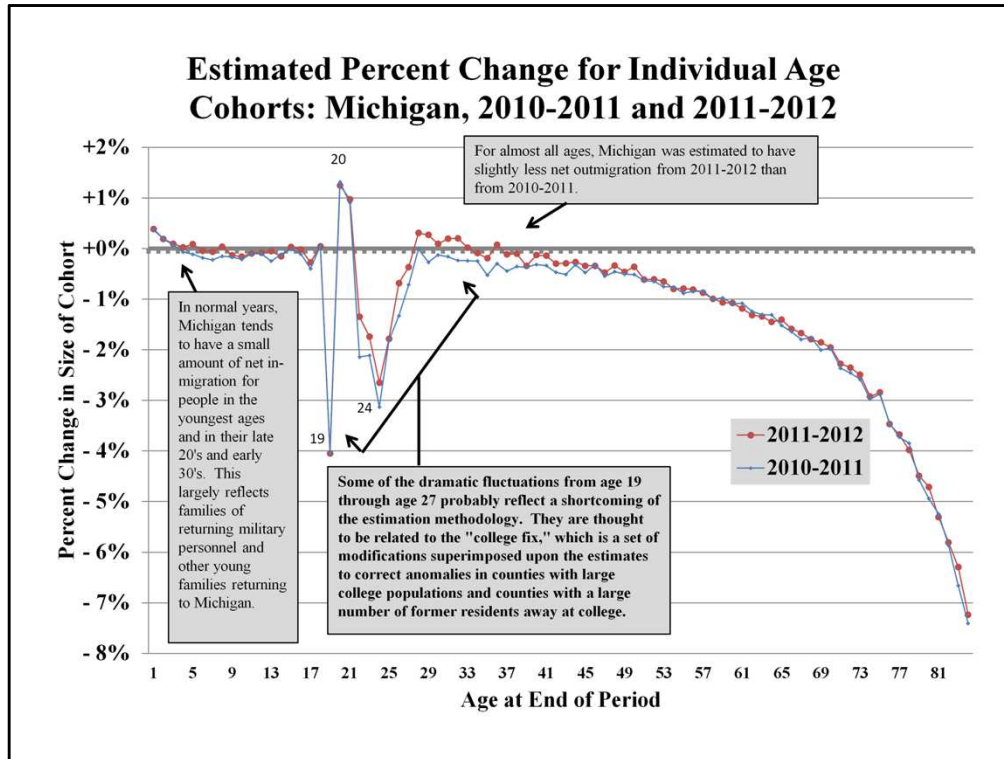
Migration rates tend to be low below the age of 18. Michigan's population share is lower for the youngest ages than for teenagers because of lower birthrates relative to the nation as a whole. The nation's birthrate is elevated by the entry of many young adults from other countries who tend to have higher fertility rates than the nation's native population. Michigan receives fewer immigrants, particularly from Hispanic countries. The state's birthrates have also been held down by its One-State Recession, by national recessions which affected Michigan more powerfully than they affected other states, and by having a relatively low proportion of the nation's population in the peak child-bearing years.

Michigan's share of the nation's population tends to drop after age 18 as young people enter military service or attend college elsewhere. Michigan does not have any large military bases, so its loss of residents for military service is not offset by entry of military personnel from other states. Likewise, the number of students from Michigan who attend college elsewhere is larger than the number of students from other states who attend college in Michigan. The state also lost a significant number of young adults over the past decade due to its recessions while it attracted very few young adults from other states. This element of population loss should decrease during the present decade.

A very interesting feature of this graph is the fluctuation in population share between ages 18 and 22. This fluctuation does not correspond to any fluctuation in the 2010 Census. Roughly two-thirds of the states have similar or complementary fluctuations in their estimated young adult populations that do not correspond to fluctuations in their census counts. These fluctuations are thought to be related to the "college fix," which is a set of modifications which the Census Bureau superimposes upon the population estimates to correct anomalies in counties with large college populations, counties with a large number of former residents away at college, and counties with large military populations.

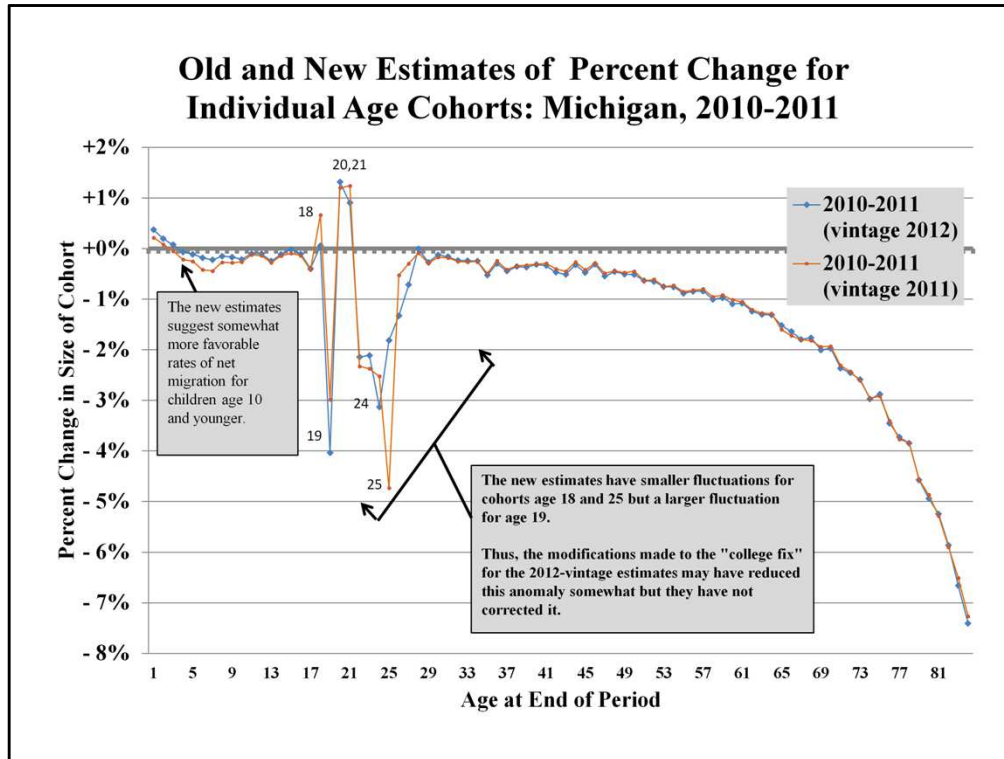


At the national level, the “college fix” does not cause large fluctuations in estimated population by age.



Unexpected fluctuations in the population estimates are evident when the number of Michigan residents for each single-year of age is compared to the number one year younger in the prior year.

The sudden drop for age 19 may largely reflect young people leaving Michigan for college and military service. However, the first chart in this document suggests that the drop for age 19 may be overstated. The estimated increases for age 20 and 21 may offset overstatement of the drop for age 19. These fluctuations probably do not reflect fluctuations in Michigan's actual population for these ages. As stated previously, they may be related to the "college fix."



The Census Bureau is working to improve the “college fix.” The new estimates for 2011 (represented by the blue line) involve less fluctuation than last year’s estimates for 2011 (represented by the orange line). In particular, the increase for age 18 and the drop for age 25 are considerably smaller. However, the decrease for age 19 is larger. Thus, the methodological changes that have been made so far seem to have reduced some of the anomalies but there continues to be much room for improvement.